

Date: Mon, 25 Apr 94 14:04:06 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #458
To: Info-Hams

Info-Hams Digest Mon, 25 Apr 94 Volume 94 : Issue 458

Today's Topics:

 Alpha Bravo Charlie Delta: phonetic alphabets (revised)
 Amplifier impedance (was SWR & Powre Loss)
 Pet Peeve
 Software for PK 232
 SWR & Power Loss (4 msgs)
 Wanted :Sept 1993 73 Magazine issue
 What are the dimensions for a 2m J-pole?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 25 Apr 1994 18:30:37 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!pipex!lyra.csx.cam.ac.uk!
news@network.ucsd.edu
Subject: Alpha Bravo Charlie Delta: phonetic alphabets (revised)
To: info-hams@ucsd.edu

Phonetic Alphabets (Alpha Bravo etc)

There is a widely known alphabet Alpha Bravo ... Yankee Zulu.
Such alphabets are variously known as phonetic alphabets,
radio alphabets and spelling alphabets. This collection
currently includes alphabets for the following languages:

 English, French, German, Dutch, Flemish, Italian,
 Rumantsch, Slovak, Polish, Hungarian, Swedish,
 Finnish, Russian and Chinese.

This posting supersedes the one of 28th February.

My thanks to the many contributors, not all of whom are acknowledged below.

I can make no guarantee of accuracy of this information; indeed please send me any corrections or additions.

In my capacity as the editor of this collection I have no objection to the further electronic distribution of this posting in full in circumstances where it is likely to be of interest.

Comments in square brackets are my own.

Brian Kelk bck1@cl.cam.ac.uk
25 April 1994

***** ENGLISH *****

The NATO phonetic alphabet:

Alpha Bravo Charlie Delta Echo Foxtrot Golf Hotel India
Juliet Kilo Lima Mike November Oscar Papa Quebec Romeo
Sierra Tango Uniform Victor Whiskey Xray Yankee Zulu

[The same alphabet, modulo Alfa and Juliett, is approved by the International Civil Aviation Organization and the FAA. The International Telecommunication Union Phonetics list has: Alfa, Juliette, Oscar/Oskar, Victor/Viktor. Dates from about 1956. UK police use Indigo instead of India (?)]

Telecom B:

Alfred Benjamin Charles David Edward Frederick George Harry
Isaac Jack King London Mary Nellie Oliver Peter Queen Robert
Samuel Tommy Uncle Victor William Xray Yellow Zebra

[Found in Swedish, Dutch, Hungarian telephone directories. A Swiss directory has: Andrew Charlie Lussy Queenie Sugar]

British A:

Amsterdam Baltimore Casablanca Denmark Edison Florida

Gallipoli Havana Italia Jerusalem Kilogramme Liverpool
Madagascar New_York Oslo Paris Quebec Roma Santiago Tripoli
Uppsala Valencia Washington Xantippe Yokohama Zurich

[An 'international' alphabet in a Dutch telephone directory
has: Danemark. A 'French' alphabet in a Hungarian directory
has: Cassablanka Danemark Que'bec Upsala Zu"rich]

Used by New York Police Department:

Adam Boy Charlie David Eddie Frank George Henry Ida John
King Larry Mary Nancy O.. Peter Queen Robert Sam Thomas
Union Victor William X-ray Yankee Zebra

Used by police in Nassau County, Long Island, New York:

Adam Boston Chicago Denver Edward Frank George Henry Ida
John King Lincoln Mary Nancy Ocean Peter Queen Robert Sam
Thomas Union Victor William X-ray Young Zebra

Used by police in San Diego, California:

Adam Boy Charles David Edward Frank George Henry Ida John
King Lincoln Mary Nora Ocean Paul Queen Robert Sam Tom Unit
Victor William Xray Yellow Zebra

Used by police in Hutchinson, Kansas:

Adam Boy Charles David Edward Frank George Henry Ida John
King Lincoln Mary Nora Ocean Paul Q.. Robert Sam Tom Union
Victor William X-ray Yankee Zebra

Sometimes used by radio hams (unofficial):

America Boston Canada Denmark England France Germany
Honolulu India Japan Kilowatt London Mexico Norway Ontario
or Ocean Pacific Quebec Radio Santiago or Spain Tokyo United
Victoria Washington Xray Yokohama Zanzibar

[Much variation: Amsterdam, Brazil, Baltimore, Chile,
Finland, Greece, Guatemala etc]

The ARRL (American Radio Relay League) alphabet (1948):

Adam Baker Charlie David Edward Frank George Henry Ida John
king Lewis Mary Nancy Otto Peter queen Robert Susan Thomas
union Victor William x-ray young zebra

[Nowadays the ARRL endorses the NATO/ICAO alphabet]

Allied Services 1945:

Able Baker Charlie Dog Edward Fox George How Item Jig King
Love Mike Nan Oboe Peter Queen Roger Sugar Tape Uncle Victor
William X-ray Yoke Zebra

Date: 25 Apr 94 18:56:59 GMT
From: sdd.hp.com!hp-pcd!hpcvsnz!tomb@hplabs.hp.com
Subject: Amplifier impedance (was SWR & Powre Loss)
To: info-hams@ucsd.edu

Sometimes it's fun to post little food-for-thought questions.

Suppose I have a 100W power amplifier that uses something like
beam power tubes in its output stage. Suppose in addition it's
being operated in a linear manner (so that superposition holds).
Suppose also that any output matching circuit it contains is
built from very high unloaded Q components--essentially lossless.
If I "look back into" the output terminals of this amplifier,
I will "see" some real impedance, which I expect to be quite
different than the load impedance that this amplifier is
designed to operate into. Suppose I connect a generator
to the output connector of the amplifier and adjust the generator
to deliver 1 watt into the impedance I "see" looking back into
the amplifier.

Exactly where do you expect that 1 watt to be dissipated?
Why? What effect will you see on the meters monitoring the
power supply voltage and current of the amplifier?

Since I'm assuming superposition holds, it won't matter
if the amplifier is delivering power itself or not. You may
assume that the generator represents the expected load to
the amplifier.

de K7ITM

Date: 25 Apr 94 18:29:23 GMT
From: sdd.hp.com!col.hp.com!srigenprp!alanb@hplabs.hp.com
Subject: Pet Peeve
To: info-hams@ucsd.edu

Gary McDuffie (mcduffie@hannibal.wncc.cc.ne.us) wrote:
: Alan Bloom (alanb@sr.hp.com) wrote:
: : arm@helix.nih.gov (Andrew Mitz) wrote:

: : >Let's put my friend in the 1990s, not the 1960s.

: This is one of those rare times when I have to come down on the opposite
: side of the fence from Al. I don't recall it being mentioned in the
: original post, but I assumed from the wording that the party in question
: was a true cw operator and would be running 25+wpm. Can you imagine trying
: to click your jaws at that speed...or puffing on a straw at that speed. ...

That's fine, and if he had used that argument, I would have no complaint.
What I object to is the argument that if a technology is not state-of-the-
art then it must be no good.

My favorite horrible example of the overuse of technology is the
microprocessor-controlled battery charger that appeared in QST a couple
years ago. It wasn't doing anything that you couldn't do with a quad
op amp and a handful of other parts, but it sure was "modern"!

AL N1AL

Date: 25 Apr 94 12:52:19 -0600
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!europa.eng.gtefsd.com!
darwin.sura.net!atlas.tntech.edu!atlas.tntech.edu!nntp@network.ucsd.edu
Subject: Software for PK 232
To: info-hams@ucsd.edu

I recently tested a number of DOS and Windows based 232 packages.. Lan
Link is about the best for packet and has alot of features for HF. a
little hard at first and then pretty good.

I don't get into all the fancy packet stuff and operate mainly HF modes
and check the bbs and such on 2 meter.. found Acuterm the best and by
far the easiest to use.. nice simple log, autocq and such (computer
control of rig).

Jeff, AC4HF

Date: 25 Apr 94 17:14:44 GMT
From: sdd.hp.com!hp-pcd!hpcvsnz!tomb@hplabs.hp.com
Subject: SWR & Power Loss
To: info-hams@ucsd.edu

Ed Haymore (haymoree@newt.ee.byu.edu) wrote:

: This article, and other material I've seen, pooh-pooh the idea of a low
: SWR. (Maybe I should preface this by saying I'm not a 1:1 SWR fanatic,
: though. :-) These articles say that as long as you have low-loss cable,
: most of the energy bouncing back and forth between the transmitter and
: the antenna ends up going out the antenna anyway.

: My question is: since the transmitter is matched to the line, why does
: the reflected energy coming from the antenna get reflected again at the
: transmitter? Why isn't it all (or mostly) absorbed in the finals?

Well, the transmitter is NOT generally matched to the line. Rather, the transmitter expects to see a particular load for proper operation, but it, in turn, does NOT represent a load of that impedance itself. Generally, it represents a much higher impedance, "looking back into it."

If you know the loss in your line under 1:1 SWR, you can calculate the additional loss due to higher SWR; there are formulas and nomographs for doing this. Usually they aren't exact but they are pretty good, particularly if the line is an even number of half-waves long, or several half-waves long. This is because, as another followup noted, the loss is less in the area of current minima and more in the area of current maxima; if your line is less than 1/4 wave long and operating into a high impedance load, the loss may actually be less than under matched conditions.

On tuners: I'd like to offer two rather different ways to look at them, and perhaps the contrast between the two different viewpoints will help some understand what's going on. I'd like to stress the results are the same, and it's only different ways of looking at the same thing. First, and probably most common, is the idea that the tuner transforms one impedance to another. The load (antenna) impedance is reflected down the length of line as some particular load impedance presented at the input terminals to the line. This can be any line, any impedance, any loss in the line, any load-- it will present some impedance at its input terminals. It's the job of the antenna tuner to transform this impedance (and perhaps provide a balanced--unbalanced transformation too) so that the transmitter "sees" the impedance it needs to operate properly. This view as an impedance transformer is a very reasonable one to take

if you are designing the tuner: it tells you what part values to use, and gives you a way to evaluate various configurations for loss and peak voltages and currents.

The second viewpoint is that the job of the tuner is to combine any power from a reflected wave in the line (load) with the power from the transmitter, so that the combination of the two is all sent back down the line for another chance at being absorbed by the load at the other end of the line. That means that the voltage and current at the feedpoint have to account for the wave coming back from the load, and the power of that wave and the power of the transmitter in a wave sent toward the load. The total voltage (and current) at the input to the line at any instant in time are the algebraic sums of the voltages (and currents) of the forward wave and the reflected wave. (In fact, this is true at all points along the line.) And the forward voltage/forward current = line Z_0 = reverse voltage/reverse current. If you work through that, of course, it will look exactly like you are feeding the impedance mentioned in the previous paragraph. (To be accurate, you have to account for losses in the tuner itself, of course; ideally, these should be small.)

If you have trouble thinking of the transmitter as having a source impedance much different than the impedance it likes to feed, consider the AC mains, or a battery. It's darned inefficient (not to mention dangerous) to load either with an impedance equal to the source impedance. It's quite normal to operate with a load impedance very much higher than the source impedance in these cases. Matching the load impedance to the (conjugate) source impedance delivers maximum power to the load, but does NOT maximize efficiency. You also learn in receivers and even audio amplifiers that matching the source to load does not generally result in best noise performance either.

73, K7ITM

Date: Mon, 25 Apr 1994 14:40:39 GMT
From: ihnp4.ucsd.edu!swrinde!gatech!kd4nc!ke4zv!gary@network.ucsd.edu
Subject: SWR & Power Loss
To: info-hams@ucsd.edu

[NOTE: I didn't write any of the quoted material below. Please be more careful with attributions.]

In article <2pfqej\$4ec@search01.news.aol.com> nx7u@aol.com (NX7U) writes:
>In article <1994Apr25.034740.8791@ke4zv.atl.ga.us>, gary@ke4zv.atl.ga.us (Gary
>Coffman) writes:
>>This article, and other material I've seen, pooh-pooh the idea of a low
>>SWR. (Maybe I should preface this by saying I'm not a 1:1 SWR fanatic,

>>though. :-) These articles say that as long as you have low-loss cable,
>>most of the energy bouncing back and forth between the transmitter and
>>the antenna ends up going out the antenna anyway.
>
>>My question is: since the transmitter is matched to the line, why does
>>the reflected energy coming from the antenna get reflected again at the
>>transmitter? Why isn't it all (or mostly) absorbed in the finals?
>
>Well it depends. The precise scenario you describe is correct (I believe)--if
>the final amp is really Z0 ohms output feeding a transmission line of Z0 ohms
>characteristic impedance, then any reverse travelling wave sees no mismatch at
>that junction, and that power is absorbed by the amplifier and essentially
>converted to heat.
>Which would explain why your fan on that solid-state rig runs harder when
>you're delivering into a crappy load :-)

Not true. Do not confuse the output impedance of a source with a real resistor seen looking into that port. A transmitter is not a load. Its output impedance is strictly a mathematical artifact of its load line (aka dynamic "resistance") transformed by any output matching network. The load line is simply E/I for the active device output mesh. It does not represent a dissipative resistor.

Example: take an 8877 with 3,000 volts on the plate and 300 ma of plate current. Its load line is 10,000 ohms, and that value is transformed to the transmitter's actual load by a matching network in its output circuit. But there is no 10,000 ohm resistor in the circuit. The actual tube resistances are measured in milliohms, primarily contact and element resistances. So there's no physical "plate resistance" in the circuit to act as a dissipative load for a wave coming in the output port. If there were, then the tube's *output* would be dissipated in it too instead of being delivered out of the port to the load.

What happens instead when an operating transmitter is terminated in a load other than the one for which its output matching network is designed is that the load presented does not equal the optimum load line of the device, and the power transfer *efficiency* of the stage declines. This loss of efficiency in converting *DC to RF* then causes the stage to get hotter. It is *not* a result of reflected power being dissipated in the transmitter's output impedance (remember, watts can only be dissipated in real resistances, and they're *tiny* compared to the fictional load line "resistance" of the stage). The power heating the stage is coming from the *DC power supply*. With an *adjustable* matching network, this wouldn't occur since the ideal load line could again be matched to the real load impedance.

What happens to a current attempting to push its way into the output

port of an active transmitter is that the current is overcome by the fresh current going out of the port. Note: currents can pass each other unimpeded **on a transmission line**. That's because there's no physical mechanism for them to combine destructively, IE no active device or physical resistor. That's not the case when the wave tries to enter an operating transmitter. Net current flow is always **out** of the output port of an active transmitter because the presence of a current trying to get in causes the load line of the device to dynamically shift and supply a corresponding cancelling current of the proper phase and magnitude. IE looking back into the output port of an active transmitter, the wave does **see** a match, but that's an artifact of the real physical processes going on. There's no real resistor turning the impinging wave into heat.

I like to use the analogy of trying to spit into a working fire hose. The spit doesn't pass unimpeded back to the pump, but the (tiny) backpressure it generates to the flow does propagate back to the pump. No water actually goes back into the pump to "dissipate". It all still goes **out** of the nozzle. Any heating of the pump is the result of the pump's motor having to work harder to overcome the backpressure. The heat comes from the power supply, not the spit.

>If there is a tuner involved it's a different story. The tuner establishes a
>conjugate match at the amp/line junction, so there **is** a mismatch there.
>Reflected energy re-reflected from the amp/line junction, and any power not
>reflected is again dissipated in the amp as heat. The point of the conjugate
>match is to insure that the re-reflected voltage appears essentially in phase
>with the original incident voltage to maximize the power transfer.

This is not quite accurate either, though its a way to **model** what happens. (Models don't have to have physical reality in order to give useful results **within their limits**). The "tuner" is actually just an extension of the matching network in the transmitter. The behavior of the wave is exactly the same as in the case where the tuner is not present **except** that output stage **efficiency** is optimized when the tuner is properly adjusted, just as it would be if the internal stage matching network were adjusted instead. Conjugate matching is just another mathematical fiction that models an actual physical process, but **isn't** that physical process. It's a conceptual mistake to read too much physical meaning into the equations of a model. It can lead to the erroneous idea that operating voltages and currents in the output stage of a transmitter somehow mystically conjure a real dissipative resistor into being.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary

534 Shannon Way	Guaranteed!	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244		

Date: 25 Apr 94 18:14:45 GMT
From: sdd.hp.com!hp-pcd!hpcvsnz!tomb@hplabs.hp.com
Subject: SWR & Power Loss
To: info-hams@ucsd.edu

Robert Berger (rwb@alexander.alias.cs.cmu.edu) wrote:

```
: I thought it was dielectric losses at the voltage maximums, which
: is why untuned dipoles matched with tuners work best with air spaced
: ladder lines. You can run a high swr between the tuner and dipole
: without the high losses coax would have in such a mismatched situation.
```

At HF, and generally up into VHF, almost all the loss in matched coax of decent construction is in I^2R loss in the conductors. Very little is in dielectric loss. This remains true up to pretty high voltage, and for long lines is really independent of the SWR: the current at maxima increases by the same percentage as the voltage at maxima, so the I^2R loss increases by the same percentage as the E^2G loss. The I^2R loss will dominate unless the line is very short (less than $1/4$ wave) and operating into a very high impedance load.

The case mentioned can be explained by the fact that a 500 ohm load fed by 50 ohm line reflects back about 5 ohms $1/4$ wave back; the current there is very high by comparison with the current at the load. On the other hand, if the line is 300 ohms, then it reflects back as about 180 ohms, representing much less current. In fact, neglecting radiative loss (and dielectric loss), the wider you space a given pair of conductors, the lower the line loss, even if the line becomes higher impedance than the load. That's because the squared current integrated along the length of the line is lower...the current is a max at the load, if the load is lower impedance than the line.

73, K7ITM

Date: 25 Apr 94 18:57:01 GMT
From: sdd.hp.com!col.hp.com!srgenprp!alanb@hplabs.hp.com
Subject: SWR & Power Loss
To: info-hams@ucsd.edu

Ed Haymore (haymoree@newt.ee.byu.edu) wrote:

: My question is: since the transmitter is matched to the line, why does
: the reflected energy coming from the antenna get reflected again at the
: transmitter? Why isn't it all (or mostly) absorbed in the finals?

Several people have posted complicated answers to the above, but there's
a simpler way of looking at it.

All you need to know is: what is the impedance looking into the feedline
at the transmitter output? If it is 50 ohms, resistive, then the
transmitter will be "happy" and put out its rated power. So long as
the feedline loss (and tuner loss, if used) is negligible, all of that
power will end up being radiated by the antenna.

If the antenna SWR is not 1:1, then that impedance will not be 50 ohms.
If you use a tuner and adjust for 1:1 SWR at the transmitter, than again
the transmitter will be "happy" and you will get full power radiated by
the antenna (less any loss in the tuner.)

You don't need to think about reflections to get the right answer.
Just consider impedance.

If you have high SWR and don't use a tuner, then you probably won't get
full power out of the transmitter, since it was designed for a 50-ohm
load impedance. In fact, most modern solid-state transmitters have
a power-shutdown circuit to protect the power amplifier from high SWR.
Old-fashioned tube-type transmitters, however, have a built-in "antenna
tuner" that allows them to work well with SWR's up to around 2:1 or so.

AL N1AL

Date: 25 Apr 1994 17:38:05 GMT
From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!csulb.edu!nic-nac.CSU.net!
usc!howland.reston.ans.net!noc.near.net!chaos.dac.neu.edu!chaos.dac!
dean@network.ucsd.edu
Subject: Wanted :Sept 1993 73 Magazine issue
To: info-hams@ucsd.edu

Hi:

My friend Thomas wants a reprint of the Sept 1993 issue of
73 Magazine. Does anyone have the address or a phone # of someone
who sells reprints? Would anyone like to sell thier copy?

-Dean

Date: Mon, 25 Apr 1994 16:58:07 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!news.ucdavis.edu!dale.ucdavis.edu!
ez045506@network.ucsd.edu
Subject: What are the dimensions for a 2m J-pole?
To: info-hams@ucsd.edu

Bruce Pea (bpea@prairienet.org) wrote:

: Reflector - 57.375"
: Stub - 19.125"
: Gap - 1.250"
: Feedpoint - ~2.500"

Great! but...

1. How do you measure the:
 - a. Reflector length:
 - i. From end to top side of tube?
 - ii. From end to center of tube?
 - iii. From end to bottom side of tube?
 - b. Stub length:
 - i. dittos
 - c. Feedpoint:
 - i. dittos
 - d. Gap:
 - i. From near sides?
 - ii. From center to center?
 - ii. From far sides?
2. What is your SWR at 144, 146, and 148MHz?
3. Are any of these dimensions critical as long as I can achieve a low SWR at 146MHz by adjusting the feedpoint?
4. Is the radiation pattern uniform or does the reflector make it directional?
5. What is the gain difference between a 2m J-pole and...
 - a. a 1/4 wave vertical?
 - b. a 5/8 wave loaded vertical?
 - c. the flexible whip that my HTX-202 comes with?

Thanks,

Timothy McNulty

N6HFS

tjmcnulty@ucdavis.edu

Date: Mon, 25 Apr 1994 14:50:23 GMT

From: ihnp4.ucsd.edu!swrinde!emory!news-feed-2.peachnet.edu!gatech!kd4nc!ke4zv!
gary@network.ucsd.edu

To: info-hams@ucsd.edu

References <56.10477.99.0C38A6E4@drig.com>, <CSLE87-210494100755@145.39.1.10>,
<1994Apr25.071313.147@unet.net.com>

Reply-To : gary@ke4zv.atl.ga.us (Gary Coffman)

Subject : Re: Mis-Posting of ORBS\$

In article <1994Apr25.071313.147@unet.net.com> laron@loren.net.com (Alan Larson)
writes:

>

> I just wanted to make it clear that not all of the readers of this
> group agree with Karl -- I think the elements here is quite reasonable.

>

> I disagree with Karl appointing himself to speak for the rest of us.

Indeed.

[flame on]

Karl, if you want to play net cop, do it in Email and make it clear you
speak only for yourself. Don't clutter the group with your cop postings.
SAREX missions are special events that deserve wider coverage than normal
orbital data postings, like those of TS Kelso, that appear periodically
in the space newsgroup. If that 600 liner starts appearing here, *I'll*
complain too, but in Email. I won't make a public nuisance of myself about
it on this group.

[flame off]

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 25 Apr 1994 16:10:44 GMT

From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!convex!news.duke.edu!godot.cc.duq.edu!

newsfeed.pitt.edu!dsinc!netnews.upenn.edu!gopher.cs.uofs.edu!triangle.cs.uofs.edu!
bill@network.ucsd.edu
To: info-hams@ucsd.edu

References <2p8ulf\$ov4@bigfoot.wustl.edu>, <042394000906Rnf0.77b9@amcomp.com>,
<1994Apr25.141334.26398@mixcom.mixcom.com>u
Subject : Re: FCC computers

In article <1994Apr25.141334.26398@mixcom.mixcom.com>, kevin jessup
<kevin.jessup@mixcom.mixcom.com> writes:

|>
|> BTW, what kind of computer are they running over in Gettysburg? A
|> PDP 1123 with the washing-machine sized drives?? On the otherhand,
|> even RSX11 is better than DOS!!
|>

Last time I heard (quite a while ago) it was a SPERRY 1100 running EXEC-8.
A PDP-11/23 running RSX11 (or RT11 for that matter) would run circles around
it. And if you think "washing-machine sized drives" sounds funny, the last
1100 I worked on (also owned by the government) had a drum as well.

bill KB3YV

--

Bill Gunshannon		de-moc-ra-cy (di mok' ra see) n. Three wolves
bill@cs.uofs.edu		and a sheep voting on what's for dinner.
University of Scranton		
Scranton, Pennsylvania		#include <std disclaimer.h>

Date: (null)
From: (null)
able baker charlie dog easy fox george how item jig king
love mike nan oboe peter queen roger sugar tare uncle victor
william x-ray yoke zebra

[The same alphabet is described as "Used by Armed services of
USA & GB" in the ARRL 1945 Handbook. Entries cited in variants
of this alphabet: affirm, cast, hypo, inter, negat, option,
over, prep]

Western Union:

Adams Boston Chicago Denver Easy Frank George Henry Ida John
King Lincoln Mary New_York Ocean Peter Queen Roger Sugar
Thomas Union Victor William X-ray Young Zero

British Army 1927:

Ack Beer Charlie Don Edward Freddy George Harry Ink Johnnie
King London Monkey Nuts Orange Pip Queen Robert Sugar Toc
Uncle Vic William X-ray Yorker Zebra

Royal Navy 1917:

Apples Butter Charlie Duff Edward Freddy George Harry Ink
Johnnie King London Monkey Nuts Orange Pudding Queenie
Robert Sugar Tommy Uncle Vinegar Willie Xerxes Yellow Zebra

U.S. Army 1916:

Able Buy Cast Dock Easy Fox George Have Item Jig King Love
Mike Nap Opal Pup Quack Rush Sail Tape Unit Vice Watch X-ray
Yoke Zed

***** FRENCH *****

Contributor: Erik Tjong Kim Sang <erikt@let.rug.nl>

anatole bernard c'ecile denise 'emile fran5cois g'erard
henri isidore jean kl'eber louis marcel nicole oscar pierre
quital robert suzanne th'er`ese ursule victor wagon xavier
yvonne zo'e

Contributor: Rudolf Lais <chibm5hp@ibmmail.com>

(Swiss telephone directory)

Anna Berthe Ce'cile Daniel Emile Franc,ois Gustave Henri Ida
Jeanne Kilo Louise Marie Nicolas Olga Paul Quittance Robert
Suzanne The're`se Ulysse Victor William Xavier Yvonne Zurich

***** GERMAN *****

Contributor: mrosa@eso.org (Michael Rosa)

Anton Berta Caesar Dora Emil Friedrich Gustav Heinrich Ida
Julius Karl Ludwig Martha Nordpol Otto Paula Quelle Richard

Siegfried Theodor Ulrich Viktor Wilhelm Xanthippe Ypsilon
Zeppelin

Umlaut: A"rger O"dipus U"bel

More recent replacements: Konrad Zacharias

Contributor: Erik Tjong Kim Sang <erikt@let.rug.nl>

anton bertha c"asar dora emil friederich gustav heinrich ida
julius kaufmann ludwig martha nordpol otto paula quelle
richard samuel theodor ulrich viktor wilhelm xanthippe
ypsilon zacharias

"a	"arger
ch	charlotte
"o	"okonom
sch	schule
"u	"ubermut

Contributor: Rudolf Lais <chibm5hp@ibmmail.com>

(Swiss telephone directory)

Anna Bertha Caesar Daniel Emil Friedrich Gustav Heinrich Ida
Jakob Kaiser Leopold Marie Niklaus Otto Peter Quelle Rosa
Sophie Theodor Ulrich Viktor Wilhelm Xaver Yverdon Zuerich

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(issued by Deutsche Bundespost)

Anton Bertha Caesar Dora Emil Friedrich Gustav Heinrich Ida
Jakob Konrad Ludwig Martha Nordpol Otto Paula Quelle Richard
Siegfried Theodor Ulrich Viktor Wilhelm Xantippe Ypsilon
Zeppelin

sch	Schule
-----	--------

Contributor: Steve Dunham <dunham@gdl.msu.edu>

Anton Berta Caesar Dora Emil Friedrich Gustav Heinrich Ida
Johann Kaufmann Ludwig Martha Nordpol Otto Paula quer
Richard Siegfried Theodor Ulrich Viktor Wilhelm Xaver

Ypsilon Zeppelin

ss Eszett

Contributor: Anno Siegel <anno4000@w172zrz.zrz.TU-Berlin.DE>

Arno Borvaselin Coburg-Gotha Doria Ernst Friedrichsroda
Gomorrha Herrenzimmer Ida Jawohl_Odol Kolberg_Ost Leonidas
Motor Nora Oekonom Per_Motorrad Quohnsdorf_bei_Forst
Revolver Sabine Tod Uniform Verbrennungstod Weltnordpol
Xolabaphon York_Yellowstone Zoroaster

oe Oekonomie
ue Ueberkonto

[This alphabet provides mnemonics for Morse code: a syllable
corresponds to a dash if it contains 'o', a dot otherwise.]

***** DUTCH and FLEMISH *****

Contributor: Erik Tjong Kim Sang <erikt@let.rug.nl>

	Dutch	Flemish
a	anna	arthur
b	bernhard	brussel
c	cornelis	carolina
d	dirk	desire
e	eduard	emiel
f	ferdinand	frederik
g	gerard	gustaaf
h	hendrik	hendrik
i	izaak	isidoor
j	jan	jozef
k	karel	kilogram
l	lodewijk	leopold
m	marie	maria
n	nico	napoleon
o	otto	oscar
p	pieter	piano
q	quotient	qualite
r	rudolf	robert
s	simon	sofie
t	teunis	telefoon
u	utrecht	ursula
v	victor	victor

w willem waterloo
x xantippe xavier
ij ijmuiden -
y ypsilon yvonne
z zaandam zola

***** ITALIAN *****

Contributor: ebuie@sed.csc.com (Elizabeth Buie)
ebuille@starlab.csc.com

Ancona, Bologna, Como, Domodossola, Empoli, Firenze, Genova,
Hacca, Imola, Jolly, Kappa, Livorno, Milano, Napoli,
Otranto, Pisa/Palermo, Quartomiglio, Roma, Savona/Siena,
Torino, Udine, Venezia, Wagner, Xilofono, York, Zara

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(Swiss telephone directory)

Anna Battista Carol Davide Ernesto Federico Giovanni acca
Isidoro i_lungo cappa Luigi Maria Nicola Olga Pietro
Quintino Rodolfo Susanna Teresa Umberto Vittorio vu_doppia
ics ipsilon Zurigo

***** RUMANTSCH *****

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(Swiss telephone directory)

Anna Berta Carla Dora Emil Flurin Guido Hugo Ida Judit Kilo
Luisa Maria Nesa Otto Paula Quirin Rita Silvia Toni Ursin
Victor Willi Xaver Yvonne Zita

***** SLOVAK *****

Contributor: Martin Votruba <votruba+@pitt.edu>

(telephone directory)

Adam, Boz~ena, Cyril, C~adca, Da'vid, D~umbier, Emil,
Frantis~ek, Gusta'v, Helena, CHrudim, Ivan, Karol, Ludvi'k,
L~ubochn~a, Ma'ria, Norbert, N~ - Nitra, Oto, Peter, Quido,

Rudolf, Sva"topluk, S~imon, Toma's~, T~ - Tepla', Urban,
Va'clav, W - dvojite' ve', Xaver, Ypsilon, Zuzana, Z~ofia

***** POLISH *****

Contributor: Michal Jankowski <michalj@fuw.edu.pl>

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Adam Barbara Celina Danuta Ewa Franciszek Genowefa Henryk
Irena Jadwiga Karol Leon L/ukasz Maria Natalia Olga Pawel/
Roman Stanisł/aw Tadeusz Urszula Wl/adysł/aw Xantypa Ygrek
Zygmunt

***** HUNGARIAN *****

(telephone directory)

Andra's Be'la Cecil Do'ra Eleme'r Ferenc Gizella Hajnalka
Istva'n Ja'nos Katalin Luca Ma'tya's Na'ndor Olga Piroška
Queen Ro'bert Sarolta Ti'mea Ubul Vilmos Walter Xe'nia
Ypsilon Zolta'n

***** SWEDISH *****

Contributors: simon@dront.nada.kth.se (Simon Tardell)
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Adam, Bertil, Cesar, David, Erik, Filip, Gustav, Helge,
Ivar, Johan, Kalle, Ludvig, Martin, Niklas, Olof, Petter,
Quintus, Rudolf, Sigurd, Tore, Urban, Viktor, Wilhelm,
Xerxes, Yngve, Z{ta,]ke, [rlig, \sten

where { is a with dots
] A with ring
[A with dots
\ O with dots

NB that W does not belong to the Swedish alphabet
(it is merely considered a graphical variant of V).

***** FINNISH *****

Contributor: Jukka Rahkonen <jrahkone@viikki.helsinki.fi>

Aarne Bertta Celsius Daavid Eemeli Faarao Gideon Heikki
Iivari Jussi Kalle Lauri Matti Niilo Otto Paavo Kuu Risto
Sakari Tyyne Urho Ville Viski [ks{ Yrj| Tseta]ke [iti \ljy

Uppercase	Lowercase	
]	}	a with circle (Swedish)
[{	a with dots
\		o with dots

***** RUSSIAN *****

Contributor: tom@systemtechnik.tu-ilmenau.de (Thomas Planke)

Aleksej Boris Vasilij Grigorij Dmitriy Elena Zhenja Zoya
Ivan Ivan_Kratkij Kilowatt Leonid Maria Nikolai Olga Pavel
Roman Sergej Tatjana Uljana Fjodor Hariton Zaplja Chelovek
Shura Schuka Tviordiy_Znak Igrek Miagkiy_Znak Emilija Yuri
Jakow

***** CHINESE *****

The Chinese armed forces use the following in connection
with Romanised Mandarin:

Aiya Boli Ciqi Desheng Egu Fuzhuang Geming Heping I: Yifu
J.. Keren Leguan Mofan Nali Ouyang Polang Q.. Riguang
Sixiang Tebie U: Weida V: Wudao W: Wuzhuang X.. Yisheng
Zidian

***** END *****

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End of Info-Hams Digest V94 #458
